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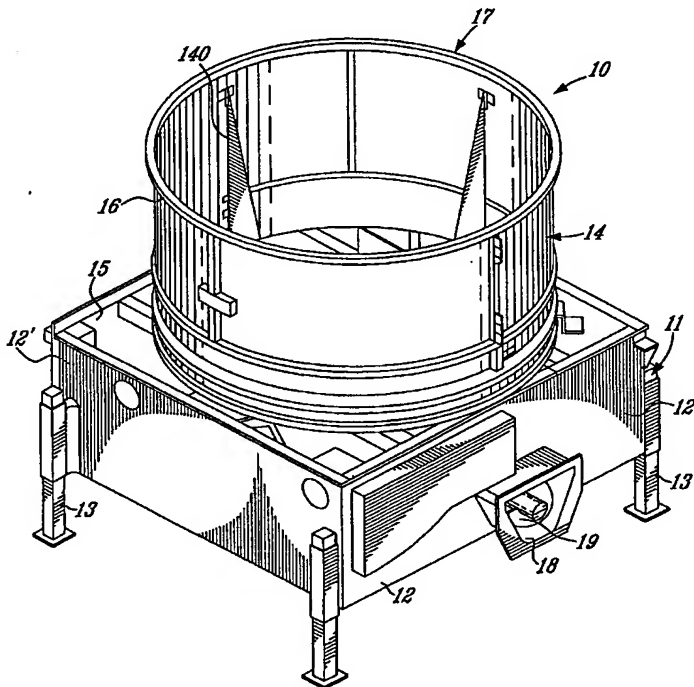
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(54) Title: **HAY BALE PROCESSOR**



(57) Abstract: A hay bale processor (10) having a cylindrical rotatable drum (14) adapted to displace a bale of hay (156-157) over a grill (26) which has a plurality of spaced-apart parallel slot openings (27) which are adjustable to define an average fiber cut length. A rotor (28) driven by an electric motor (66-67) has cutting blades (35) projecting through the openings to contact a bottom face (159) of a bale of hay (160) displaced over the grill. The rotor has a driveable shaft (29) secured to a displaceable suspension mechanism (45) to displace the blades (35) in the openings and above the grill a variable distance depending on the resistive load applied. A hay bale processor (10) having a cylindrical rotatable drum (14) adapted to displace a bale of hay (156-157) over a grill (26) which has a plurality of spaced-apart parallel slot openings (27) which are adjustable to define an average fiber cut length. A rotor (28) driven by an electric motor (66-67) has cutting blades (35) projecting through the openings to contact a bottom face (159) of a bale of hay (160) displaced over the grill. The rotor has a driveable shaft (29) secured to a displaceable suspension mechanism (45) to displace the blades (35) in the openings and above the grill a variable distance depending on the resistive load applied to the blades of the rotor when a bale of hay is displaced over the grill. The displaceable suspension

mechanism (45) is biased upwardly by an air cylinder (50) or air cushion device (280) to maintain a substantially constant pressure on the displaceable suspension such that when the load on the cutting knives of the rotor are subjected to a force exceeding the predetermined pressure of the cylinder the rotor is displaced whereby a substantially constant drive torque is maintained on the electric motor driving the shaft (29) of the rotor (28).



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